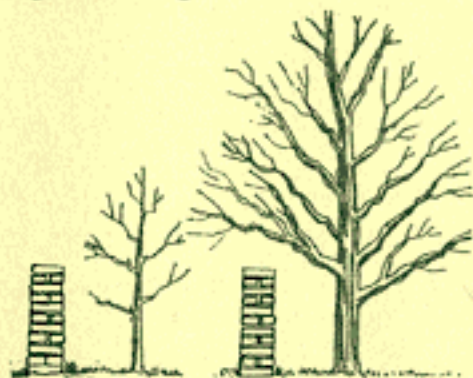
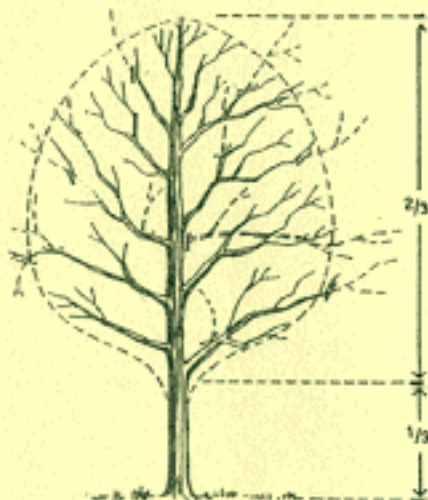




Function: Try to imagine what the tree will look like when it is larger. If a limb is headed toward trouble, remove it as early as possible in the life of the tree. Closure of the wound will be more complete when the limb is small, and it is less trouble and expense. Remember, limbs do **not** move upward as a tree grows in height



CAUTION: No more than 1/3 of the live crown should ever be removed in a single cutting.



WHEN TO PRUNE

Summer: To direct the growth by slowing the branches you don't want; or to slow or "dwarf" the development of a tree or branch, pruning should be done soon after seasonal growth is complete. The reason for the slowing effect is that you reduce the total leaf surface, thereby reducing the amount of food manufactured and sent to the roots for their development and next year's growth of the crown.

Another reason to prune in the summer is for corrective purposes. Defective limbs can be seen more easily, or limbs that hang down too far under the weight of leaves.

Fall: Because decay fungi spread their spores profusely in the fall and healing of wounds seems to be slower on fall cuts, this is a good time to leave your pruning tools in storage.

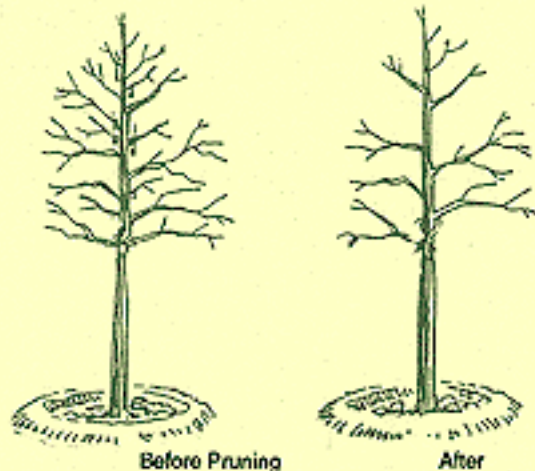
Winter: Pruning during dormancy is the most common practice. It results in a vigorous burst of new growth in the spring and should be used if that is the desired effect. It is usually best to wait until the coldest part of winter has passed. Some species, such as maples, walnuts and birches, may "bleed" when the sap begins to flow. This is not harmful and will cease when the tree leafs out.

Flowering Trees: For trees that bloom in summer or fall on current year's growth (crepe myrtle) prune in winter.

For trees that bloom in spring from buds on one-year old wood (dogwood and flowering fruit trees), prune when their flowers fade.



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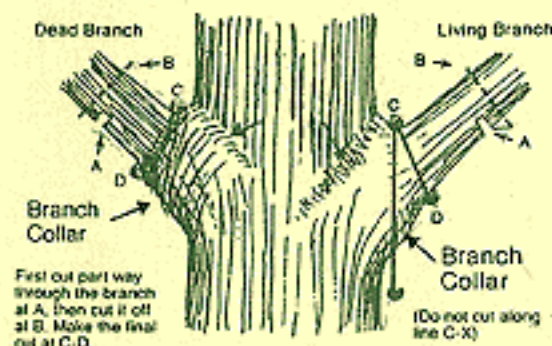
Double Leaders: Protect the leader from competition. In trees with co-dominant leaders, remove the one with a crook or other defect, or one that creates a lop-sided appearance.



Ingrowers/Protruders: When a crown is dense, look for limbs that turn inward, and those that extend beyond the "natural" outline of the crown. Prune at the trunk or down to an appropriate lateral branch. Over-pruning can damage or even kill your tree. Always maintain at least 2/3 of the tree as the live crown.

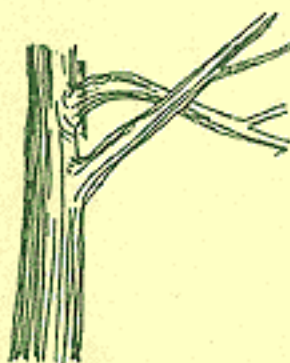
PROPER PRUNING TECHNIQUES

The first guide to pruning a young shade tree is to have a clear understanding about what pruning can do for the tree and how to correctly make your cuts.

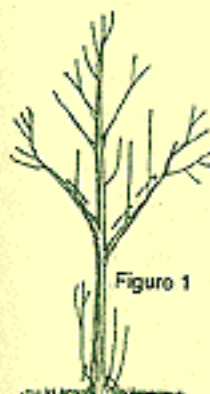


PRUNING FOR STRENGTH

Rubbing Branches: Branches that rub result in wounds, decay and notches. Remove one of the offending branches.



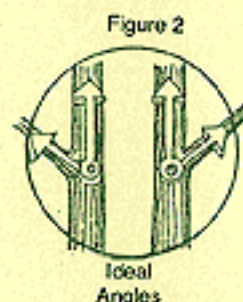
Watersprouts/Suckers: These "parasite" sprouts can occur at the base or inside the crown. They are rapidly growing, weakly attached and upright. Usually they use more energy than they return to the tree. It is best to remove them as soon as possible when it is obvious they are vigorous sprouts. (Figure 1)



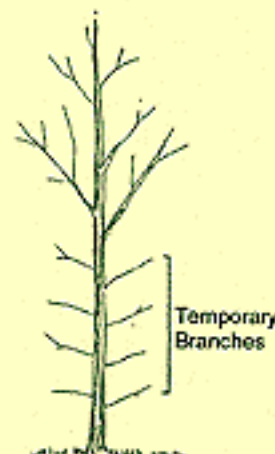
Branch Angles and Size: Narrow angles signal a point of future weakness, whether in the trunk or crown. The reason is that as the two branches grow, neither has sufficient space to add the wood needed for strength. Instead, they grow against each other. The effect is similar to hammering in a wedge. To prevent this and the expensive problems that are sure to follow, simply remove one of the two branches. For strength, the ideal branching angle approximates 10 or 12 o'clock. (Figure 2)

Lateral branches should be no more than 1/2 to 3/4 the diameter of the trunk. As the trunk grows it will strengthen the joint by adding wood around the branch – like a dowel in a chair leg.

Temporary Branches: Branches below the lowest permanent branch can protect, young



bark from injury from the sun and add taper and strength to the trunk. Particularly in lawn plantings where lower limbs do not block passage or tempt vandals, the limbs may be left for 3 - 4 years after planting. Then remove them over the next 2 - 3 years, beginning with the larger temporaries. Don't let the temporary branches become large and vigorous. Shorten the larger temporary branches or remove vigorous temporaries if less vigorous ones can be selected.



PRUNING FOR FORM

The objective in pruning for form is to help shape a tree that is aesthetically pleasing and serves well in the space it is to occupy. After pruning with strength in mind, look for ways to help shape the most desirable tree.

Thinning/Spacing: Most trees benefit from thinning – removing a portion of the limbs that compete for space and light. Evenly spaced laterals, 8 - 12 inches apart in the young tree, is a good rule of thumb to help assure an ideal "ladder" at maturity.